Special Issue

Device-on-Chip Application in Biomedical Engineering

Message from the Guest Editors

Biosensors have the potential to deliver point-of-care diagnostics and remote biological sensing that can match or even surpass the conventional technologies. With the development of nanotechnology, sensors and the measurement electronics can be miniaturized while maintaining the high level of sophistication. The challenge lies in the integration of sensors with their control and data acquisition along with achieving high-performance data analysis, which can create a device-on-chip solution for real-time application. Microcontrollers and FPGAs are frequently employed in those applications. This Special Issue is soliciting original research in this area with the following areas of focus:

- Novel integration platforms for sensor control and data acquisition using embedded electronics such as microcontroller and FPGA
- Real-time sensor data processing using FPGA technology
- Integration of deep learning technology with sensors as a device-on-chip solution
- High-performance data analysis and high data throughput of image sensors

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Message from the Editor-in-Chief

Biosensors is a leading journal, devoted to fast publication of the latest achievements, technological developments and scientific research in the exciting multidisciplinary area of biosensors. Both experimental and theoretical papers are published, including all aspects of biosensor design, technology, proof of concept and application. Special issues are devoted to specific technologies and applications, and a selection of the most outstanding papers each year is recognized. Pushing the boundaries of the discipline, we invite original papers, as well as timely reviews on cutting edge fields within the subject area.

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